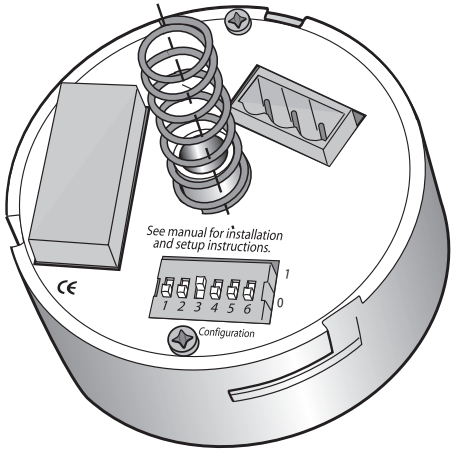


INSTALLATION AND USER'S MANUAL

Veko 2010
Schagen
Version 0

ADVR/

VEKO LIGHTSYSTEMS

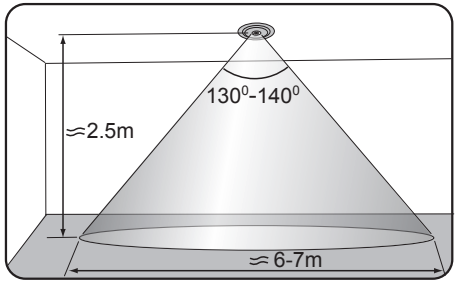
INTRODUCTION

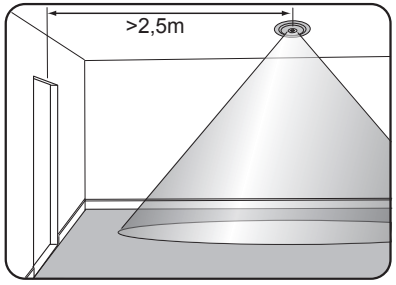
The ADVR is an intelligent motion sensor system for turning on lights. Movement is detected using a pyroelectric infrared sensor (PIR) and a microphone.

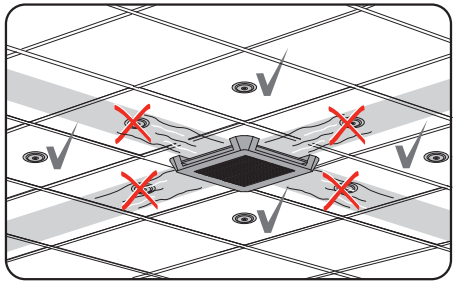
The PIR reacts to changes in temperature patterns. People and animals radiate heat. If they enter or move within the range of the ADVR motion sensor, the heat patterns change within this range. The ADVR detects this and interprets it as motion. It remains activated until the source of the heat leaves the area or stops moving.

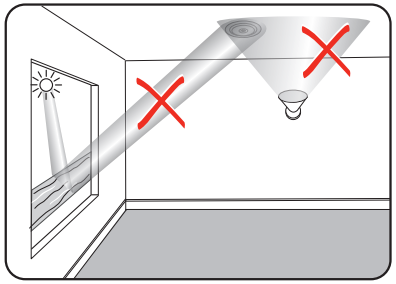
If the lights are off, the ADVR will turn on the lights at the first sign of movement. This also activates the sound detector. Together they determine whether there is any presence in the room. The ADVR is designed not to immediately switch when it no longer senses any motion; it uses a so-called delay switch. The motion sensor and the noise detector each have their own timers, which reset each time they detect something simultaneously. If one of these timers runs out, the lights are switched off.

The ADVR is equipped with a twilight switch, which enables the system not to switch on the lights when the amount of daylight exceeds a certain level.









PLACEMENT

ADVRs are suitable for mounting on ceilings and are available in both a recessed version (ADVRI) and a surface mounted version (ADVRO). Both have a detection angle of 130 to 140°. This equates to a diameter of 6 to 7 metres from a ceiling height of 2.5. The optimum ceiling height is 2.5 to 3 metres. The higher the ceiling, the less sensitive the motion sensors will be.

Caution! The sensitivity of the motion sensor always deteriorates towards the outer edge of its range.

The ADVR functions optimally in the centre of the room. The following factors have a negative effect on its operation:

- direct air currents, e.g., from a heater or air conditioning unit;
- direct radiation (lamps, reflected sunlight (off water, for instance)).

Ideally the device should be installed 2.5 metres from the entrance to the room.

ADVR/

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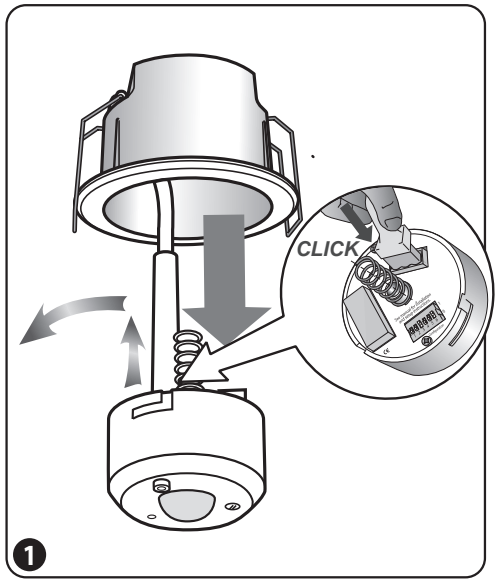
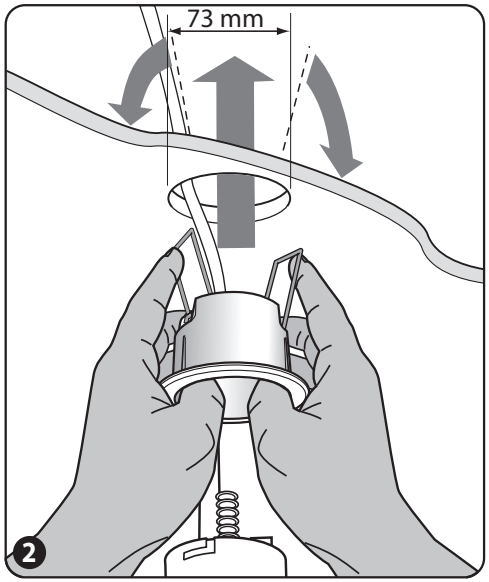
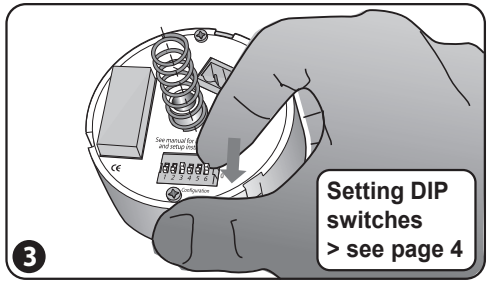
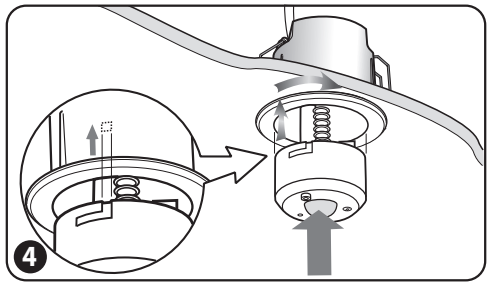
CEILING MOUNTING









Remove the sensor unit from its casing. Check that the connector is properly mounted (it will 'click' when pushed). Cut a circle with a diameter of 73 mm in the ceiling. Push the springs up with both hands and guide the casing through the hole in the ceiling. Release the springs. If the ceiling is soft, put reinforcement under the springs. Put the detector into the ceiling ring. Turn to the right until the bayonet fitting locks.

DIP switches can be set before installation and can also be adjusted later to the desired setting.

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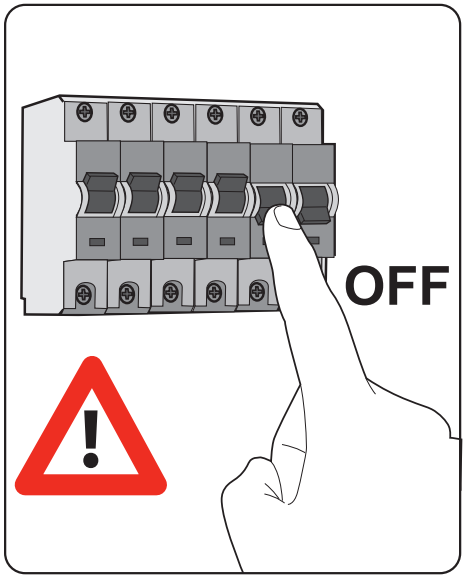
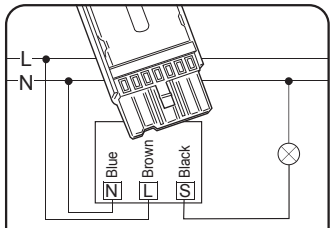
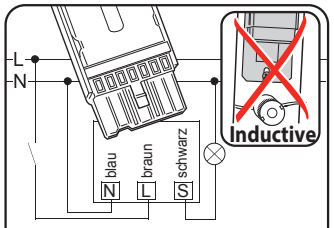
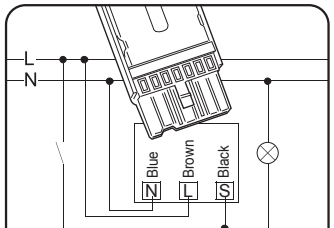
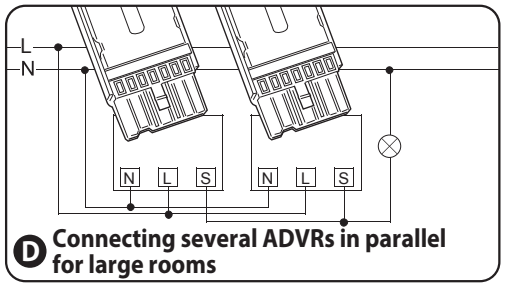
CONNECTION

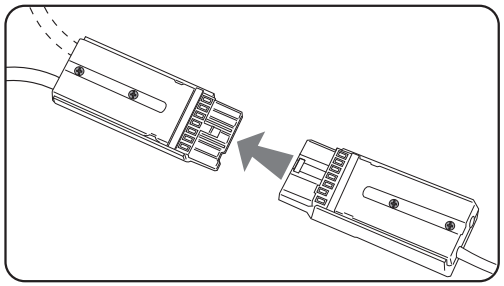










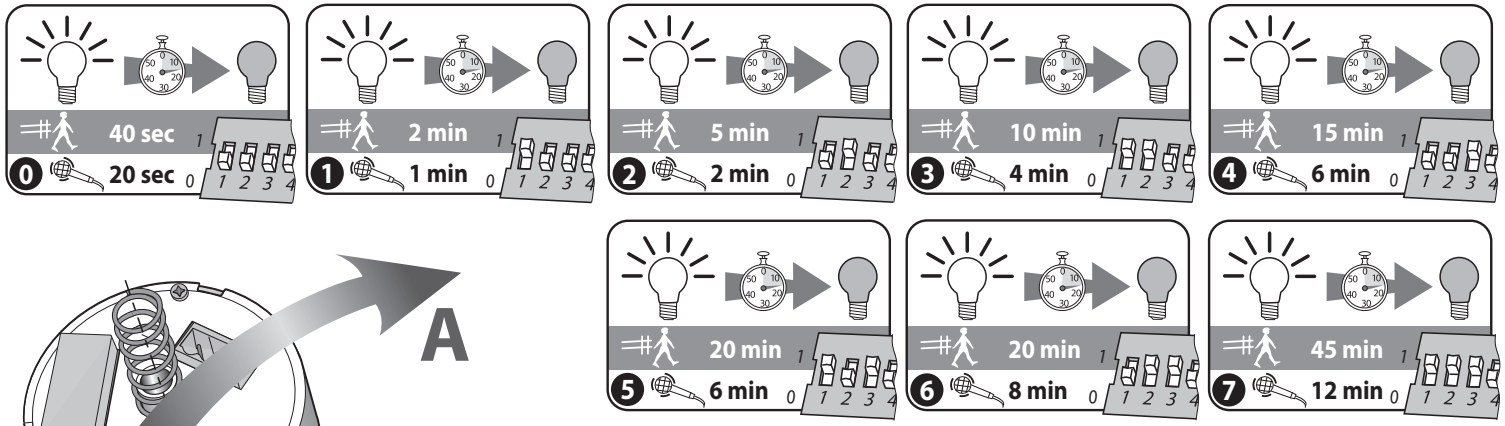


Before you connect the ADVR, turn the mains off!
Standard connection: Connect phase (L) to the brown wire, the switch wire (S) to the black wire and neutral (N) to the blue wire.
The order of connections in Figures B and C is the same as in Figure A.
If the current to the ADVR is switched on, the lighting will always be switched on.

Do not apply version B if inductive lighting is used, such as conventional pre-switching equipment.

Do not use 'cold start' switches if the ADVR is likely to turn the lights on more than twice a day.

SETTINGS [1]



Delayed off switch (A)
The ADVR has 8 settings for the delayed-off switch for motion and noise detection, which can be selected using switches 1 to 3. The standard setting for office spaces is A4. Setting A0 has a very short delay (only to be used to test the ADVR and the installation).

Caution! Do not set the delay switch to less than 5 minutes for vapour lamps! Short switch times have a negative effect on the lifespan of these lamps because they are not given enough time to warm up.

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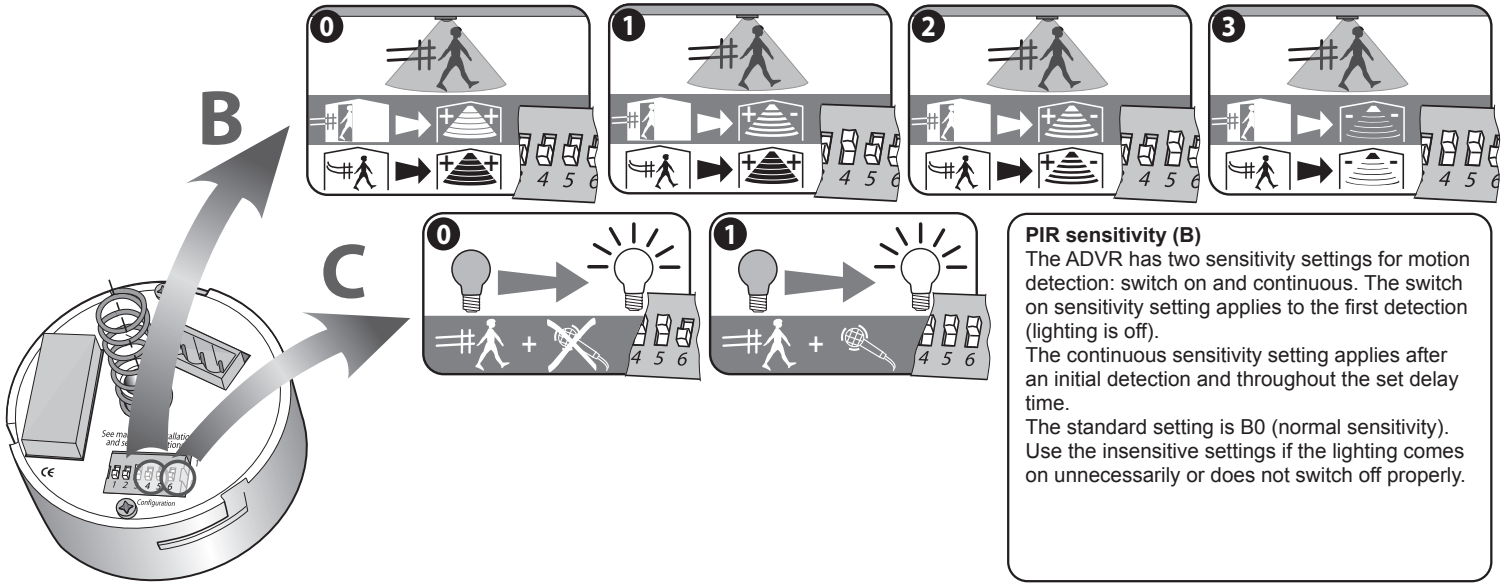
Motion detection

Noise detection

SETTINGS [2]



PIR sensitivity (B)
The ADVR has two sensitivity settings for motion detection: switch on and continuous. The switch on sensitivity setting applies to the first detection (lighting is off).
The continuous sensitivity setting applies after an initial detection and throughout the set delay time.
The standard setting is B0 (normal sensitivity).
Use the insensitive settings if the lighting comes on unnecessarily or does not switch off properly.

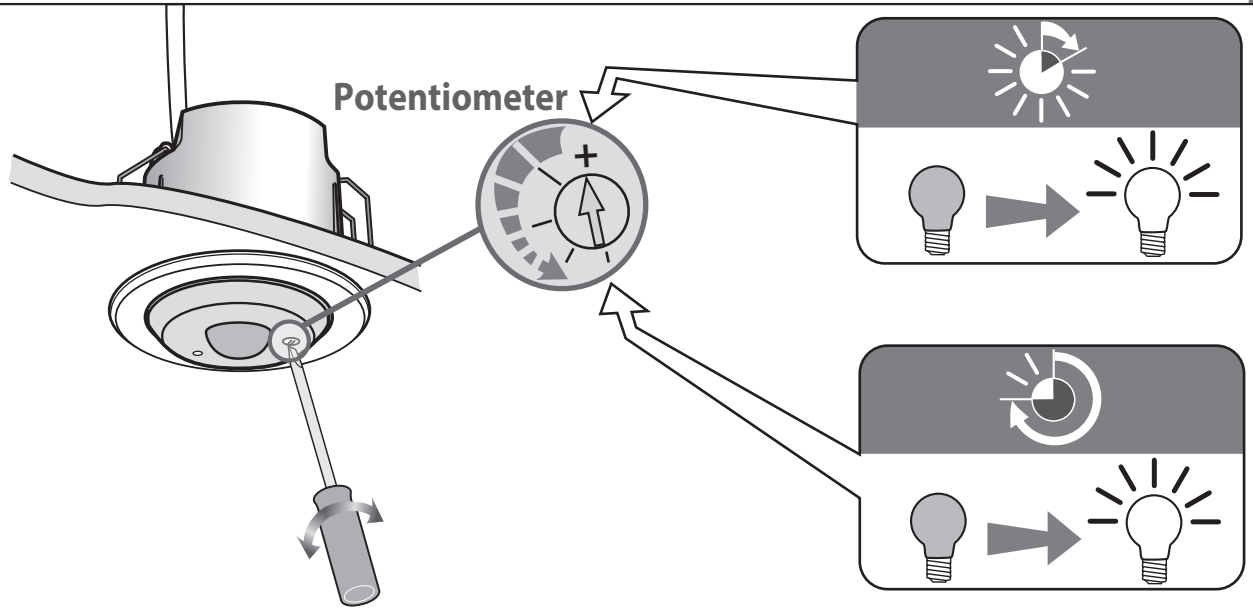
Switch on setting (C)
Normally the ADVR will switch on when movement is detected. After that, the motion and noise sensors determine when the lights should be switched off. The standard setting is C0.
If the lighting comes on unnecessarily, for example, by a printer or a fax machine, the ADVR can be adjusted to only switch on if noise (> 60 dB) is registered alongside motion.

Caution! The ADVR will not switch on in this setting if only noise is detected.

First detection

Following detection

Degree of detection sensitivity



SETTINGS [3]

Twilight switch
The ADVR is equipped with a twilight switch. This ensures that the lighting is not turned on if there is sufficient daylight in the room.
If this is the case, and the daylight level drops below the set value while the room is still occupied, the lighting will turn on. If the lighting is on and the amount of daylight rises above the set value, the lighting will stay on. This prevents unnecessary switching on and off. Turn clockwise for higher twilight value and counter-clockwise for a lower twilight value. A higher twilight value means that more daylight is required to stop the lights from turning on. Adjust the potentiometer to 'max' to turn the twilight switch off altogether.

Onset of twilight

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SAFETY

Before you connect the ADVR, the current must be turned off.

Only certified electricians are permitted to work on 230V mains.

All installation instructions must be followed.

If in doubt, consult VEKO lightsystems technical service department.

Ensure that the wires are connected according to the colour coding.

Comply fully with the technical specifications of the equipment.

Do not use 'cold start' switches if the ADVR is likely to switch on the lighting more than twice in a 24-hour period.

The ADVR is not certified for use as an alarm system.

TROUBLESHOOTING

Fault	Possible cause	Solution
Lighting is not switching on	No current	▪ check mains
	Switches on for motion and sound	▪ make a noise on entering room ▪ set to switch on only for movement
	Twilight value not yet reached	▪ adjust settings
	Bulb defective	▪ replace
Lighting is switching on unnecessarily	Switches on after loss of current	▪ wait
	Sudden change in heat patterns (e.g., printer, fan, air conditioning etc.) within detection range	▪ choose a better site ▪ lower sensitivity ▪ set to switch on for movement and sound
Lighting is switching off unnecessarily	No detection within set delay time	▪ choose longer delay
	Person is outside detection range	▪ choose a better site ▪ use more detectors
	The detector is higher than 3 metres	▪ mount the detector lower
	No current	▪ reset mains
Lighting on permanently	Switch is overridden by installation switch	▪ turn switch off
	Heat patterns within detection range are constantly changing	▪ choose a better site ▪ lower sensitivity of continuous motion sensor
Lighting is not switching off when there is sufficient daylight	Never switches off with sufficient daylight	▪ leave the room and wait until the delay switch time passes

TECHNICAL SPECIFICATIONS

Nominal voltage:	**230 V ~ ± 10%, 50 Hz**
Maximum continuous power:	**6 A at cos φ = 1** **[2 A at cos φ = 0,4]**
Usage (switched on/off):	**< 1 W / < 4 W**
PIR detection angle:	**All round 130° - 140°**
Switched off time delay:	**10 sec.- 45 Min. [motion]** **20 sec.-12 min [noise]**
Ambient temperature:	**0-40 °C**
Appliance class:	**IP20**

CE

Rev.0 December 2010